

REMARKS

Drawings

The drawings have been objected to under 37 CFR 1.83(a) for failing to show every feature specified in the claims. More particularly, the outstanding Office Action asserts that the “inner crest diameter” of claims 70 and 74 is not illustrated in the drawings. Without acquiescing in this assertion, recitation of the “inner crest diameter” has been removed from claims 70 and 74. Accordingly, the objection to the drawings is now moot, and withdrawal of the objection is respectfully requested.

Claim Rejections – 35 USC §112

Claims 70-72 and 74-76 have been rejected under 35 U.S.C. §112, first paragraph. As indicated above, recitation of the “inner crest diameter” has been removed from claims 70 and 74. Accordingly, withdrawal of the rejection of claims 70-72 and 74-76 under 35 U.S.C. §112 is respectfully requested.

Claim Rejections – 35 USC § 103

Claims 44-47, 49-52, 54-57, 70-72 and 74-77 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,248,105 to Schlapfer et al. (hereafter “Schlapfer”) in view of U.S. Patent Publication No. 2001/0001119 to Lombardo (hereafter “Lombardo”), and claim 58 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Schlapfer in view of Lombardo and further in view of U.S. Patent Publication No. 2003/0004512 to Farris et al. (hereafter “Farris”). Additionally, claim 44 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Schlapfer in view of Lombardo and further in view of U.S. Patent No. 6,090,111 to Nichols (hereafter “Nichols”).

Applicants hereby reserve the right to remove all or part of the references relied upon by the outstanding Office Action, as appropriate, with an affidavit under 37 C.F.R. §1.131 in this and any continuing applications.

The seminal case directed to application of 35 U.S.C. §103 is Graham v. John Deere, 383 U.S. 1, 148 U.S.P.Q. 459 (1966). From this case, four familiar factual inquiries have resulted. The first three, determining the scope and content of the prior art, ascertaining differences between the prior art and the claims at issue and resolving the level of ordinary skill in the pertinent art, are directed to the evaluation of prior art relative to the claims of the pending application. The fourth factual inquiry is directed to evaluating evidence of secondary considerations. See, Manual of Patent Examining Procedure (MPEP) §2141. From these inquiries, the initial burden is on the Examiner to establish a *prima facie* case of obviousness. For at least the following reasons, it is respectfully submitted that a *prima facie* case of obviousness has not been established in this case. In addition to the foregoing, in order for an obviousness rejection to be proper, the combination of prior art references must teach or suggest all the claim limitations. See, In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Claim Amendments

The Applicant has cancelled claims 47, 54, 56 and 57 from the subject application without prejudice for possible submission in a continuing application. Additionally, claim 58 has been rewritten in independent form. Furthermore, independent claims 44, 70 and 74 have been amended to recite further features associated with the claimed invention, and claim 55 has been amended to depend from rewritten independent claim 58.

Rewritten Independent Claim 58 and Dependent Claim 55

The Applicant has rewritten claim 58 in independent form to include each of the elements and features recited in independent claim 54 and intervening claims 56 and 57. The Applicant has therefore cancelled claims 54, 56 and 57 from the subject application without prejudice for possible submission in a continuing application. Additionally, claim 58 has been amended to correct a grammatical informality. However, the Applicant submits that the scope of claim 58 has not changed.

As indicated above, claim 58 currently stands rejected under 35 U.S.C. §103(a) as being unpatentable over Schlapfer in view of Lombardo and further in view of U.S. Patent Publication No. 2003/0004512 to Farris et al. The Applicant submits that Farris does not qualify as prior art

against claim 58 per the provisions set forth in 35 U.S.C. §103(c). Specifically, Farris would only otherwise qualify as prior art under 35 U.S.C. §102(e)/103(a). Furthermore, the undersigned attorney of record states that the present application and Farris were, at the time the invention was made, owned by, or subject to an obligation of assignment to, the same person(s) or organization(s). To further evidence this fact, the Applicant notes that U.S. Patent Publication No. 2003/0004512 to Farris et al. (and the parent application to which the '512 publication claims priority as a continuation application) were assigned to SDGI Holdings, Inc. via an assignment recorded at Reel/Frame 016614/0400. Additionally, the present application was subject to an obligation of assignment to SDGI Holdings, Inc. at the time the invention was made, and ownership was subsequently transferred to SDGI Holdings, Inc. via an assignment recorded at Reel/Frame 010390/0110.

Since the subject matter of Farris and the invention of the present application were, at the time the present invention was made, owned by the same entity (i.e., SDGI Holdings, Inc.), under the provisions of 35 U.S.C. §103(c), Farris does not qualify as prior art with regard to the rejection of claim 58 under 35 U.S.C. §103(a). Accordingly, withdrawal of the rejections of rewritten independent claim 58 and dependent claim 55 and allowance of the same is respectfully requested. Since Farris fails to qualify as prior art with regard to any claim rejections based on 35 U.S.C. §103(a), the Applicant has not addressed the grounds of rejection regarding claim 58, but reserves the right to challenge the grounds of rejections and/or to submit comments and arguments in support of the patentability of independent claims 58 and dependent 55 at a later date if necessary.

The Applicant further notes that under the provisions of MPEP §706.07(a), should rewritten independent claim 58 be rejected in a further Office Action, such rejection would constitute a new ground of rejection that would not be necessitated by Applicant's amendment of claim 58. Specifically, the Applicant has simply rewritten claim 58 in independent form, and did not in any way change the scope of claim 58. Accordingly, if a new ground of rejection is set forth in the next Office Action with regard to claim 58, the next Office Action can not properly be made final.

Independent Claim 44 and Dependent Claims 45, 46 and 48-52

Independent claim 44 currently stands rejected as being unpatentable over Schlapfer in view of Lombardo. The Applicant has amended independent claim 44 to recite, in combination with other features and elements, “wherein said retaining member comprises a substantially planar member having a top surface and an opposite bottom surface defining an overall height therebetween, and having a body width that is substantially constant throughout said retaining member between said top surface and said bottom surface along said overall height”. The Applicant notes that the recitation regarding the retaining member having “a substantially planar configuration” was taken from dependent claim 47, which has now been cancelled without prejudice. Additionally, support for the amendment to independent claim 44 is found, for example, in Figures 6A, 6B and 7 and in paragraphs [0039] and [0040] of the published version of the subject application (i.e., U.S. Patent Application No. 2004/0116929). As shown in Figures 6A, 6B and 7 and as described in the written description, the retaining member 90 has a top surface 92 and an opposite bottom surface 94 defining an overall height, and a body width W that is substantially constant throughout the retaining member 90 between the top surface 92 and the bottom surface 94 along the overall height of the retaining member 90.

With regard to Schlapfer, Figure 1 illustrates a sleeve 10 including a bore hole 6 between a first end 28 and a second end 29. The bore hole 6 includes a channel 17 in which a lower flange 18 of a spring chuck 7 is positioned. (See column 4, lines 36-37). The spring chuck 7 extends between an upper end 8 and a lower end 13 to define an overall height of the spring chuck 7. The outside of the spring chuck 7 from the lower flange 18 to the upper end 8 defines a conical inward taper. (See column 4, lines 50-52). The spring chuck 7 also includes a spherical shaped cavity 15 structured to receive head 5 of pedicle screw 2. The sleeve 10 also includes a cylindrical insert 9 having a conical taper complementary to the taper of the spring chuck 7. In this arrangement, when the insert 9 is forced toward the lower end 13 of the spring chuck 7, the spring chuck 7 compresses against and engages the head 5 of the bone screw 2.

In contrast to the features recited in independent claim 44, the spring chuck 7 of Schlapfer does not have “a substantially planar configuration”. Instead, the spring chuck 7 includes a lower flange 18 and an inwardly tapering upper cone portion 14. The configuration of

the spring chuck 7 is clearly not planar. Furthermore, the spring chuck 7 does not have “a top surface and an opposite bottom surface that define an overall height therebetween, and having a body width that is substantially constant throughout said retaining member between said top surface and said bottom surface along said overall height”. To the contrary, the width of the lower flange 18 is clearly much greater than the upper cone portion 14. Additionally, the upper cone portion 14 tapers inwardly toward the upper end 8. Accordingly, the spring chuck 7 does not have a body width that is substantially constant between the upper end 8 and the lower end 13 along the overall height of the spring chuck 7. It is further noted that Lombardo fails to overcome this deficiency of Schlapfer as well.

In view of the foregoing, the Applicant submits that a *prima facie* case of obviousness has not been established with respect to independent claim 44. Accordingly, withdrawal of the rejection of independent claim 44 and allowance of the same is respectfully requested.

Claims 45, 46 and 48-52 depend from independent base claim 44 or an intervening claim and are also patentable over the Schlapfer/Lombardo combination for at least the reasons supporting the patentability of independent base claim 44, although further reasons support the patentability of these claims as well. For example, claim 51 recites “... wherein said head of said bone anchor is substantially between said retaining member and said upper opening portion”. However, as illustrated in Figure 1 of Schlapfer, the head 5 of the bone screw 2 is not positioned between the spring chuck 7 and an upper portion of the sleeve 10. Instead, the head 5 of the bone screw 2 is encompassed within the spring chuck 7, and therefore is not positioned substantially between the spring chuck 7 and an upper opening portion of the spring chuck 7.

Independent Claim 70 and Dependent Claims 71 and 72

Independent claim 70 currently stands rejected as being unpatentable over Schlapfer in view of Lombardo. The Applicant has amended independent claim 70 to recite, in combination with other features and elements, a receiver member including an interior groove having an upper limiting surface and a lower limiting surface with both of the limiting surfaces being substantially perpendicular to the axis of the received and defining a groove height, and a retaining member occupying the groove, and “wherein said retaining member has a top surface,

an opposite bottom surface, and an overall height between said top surface and said bottom surface that is substantially equal to said groove height".

The Applicant notes that support for the amendments to independent claim 70 are found, for example, in Figures 6A, 6B and 7 and in paragraphs [0039] and [0040] of the published version of the subject application (i.e., U.S. Patent Application No. 2004/0116929). As shown in Figures 6A, 6B and 7 and as described in the written description, the retaining member 90 has a top surface 92, an opposite bottom surface 94, and an overall height between the top surface 92 and the bottom surface 94 that is substantially equal to the height of the groove 41 in the receiver member 30.

In contrast to the features recited in independent claim 70, the spring chuck 7 does not have "a top surface, an opposite bottom surface, and an overall height between said top surface and said bottom surface that is substantially equal to said groove height". To the contrary, the overall height of the spring chuck 7 between the upper end 8 and the lower end 13 is much greater than the height of the channel 17 in the sleeve 10. Furthermore, one of ordinary skill in the art would not modify the spring chuck 7 to include an overall height substantially equal to the height of the channel 17 in the sleeve 10. Specifically, the upper cone portion 14 of the spring chuck 7 is compressed or crush-locked about the head 5 of pedicle screw 2 via the insert 9. The Applicant notes that removal of the upper cone portion 14 of the spring chuck 7 would be contrary to the operating requirements of the Schlapfer device.

In view of the foregoing, the Applicant submits that a *prima facie* case of obviousness has not been established with respect to independent claim 70. Accordingly, withdrawal of the rejection of independent claim 70 and allowance of the same is respectfully requested.

Claims 71 and 72 depend from independent base claim 70 and are also patentable over the Schlapfer/Lombardo combination for at least the reasons supporting the patentability of independent base claim 70.

Independent Claim 74 and Dependent Claims 75-77

Independent claim 74 currently stands rejected as being unpatentable over Schlapfer in view of Lombardo. The Applicant has amended independent claim 74 to recite, in combination with other features and elements, a receiver member including an interior groove having a

groove diameter, and a retaining member having an inner dimension and an outer diameter, and with “said retaining member comprising a substantially circular ring member that can be contracted for insertion into said groove, and wherein said retaining member has an outer diameter in a natural non-contracted condition that is greater than said groove diameter such that said retaining member is compressed against an outer wall of said groove and is substantially immovable in a radial direction when occupying said groove”.

The Applicant notes that many of the features incorporated into independent claim 74 are recited in claims 46, 48 and 49. Additionally, the Applicant submits that support for the amendment to independent claim 74 is found, for example, in Figures 6A, 6B and 7 and in paragraphs [0039], [0040] and [0043] of the published version of the subject application (i.e., U.S. Patent Application No. 2004/0116929).

In contrast to the features recited in independent claim 74, the lower flange 18 of the spring chuck 7 does not have an outer diameter in a natural non-contracted condition that is greater than the diameter of the channel 17 in the sleeve 10 such that the lower flange 18 is compressed against an outer wall of the channel 17 and is substantially immovable in a radial direction when occupying the channel 17. Instead, as shown in Figure 1 of Schlapfer, when the lower flange 18 of the spring chuck 7 is positioned with the channel 17 in the sleeve 10 in a natural non-contracted condition, the outer diameter of the lower flange 18 is less than the diameter of the channel 17. As a result, the lower flange 18 is not compressed against an outer wall of the channel 17, and is not substantially immovable in a radial direction when occupying the channel 17. Indeed, when the lower flange 18 of the spring chuck 7 is positioned in the channel 17 in a natural non-contracted condition, a gap exists between the outer end of the lower flange 18 and the inner wall of the channel 17.

In view of the foregoing, the Applicant respectfully submits that a *prima facie* case of obviousness has not been established with respect to independent claim 74. Accordingly, withdrawal of the rejection of independent claim 74 and allowance of the same is respectfully requested.

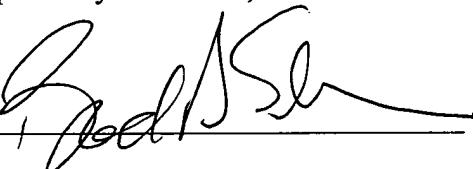
Claims 75-77 depend from independent base claim 74 and are also patentable over the Schlapfer/Lombardo combination for at least the reasons supporting the patentability of independent base claim 74.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that the Applicant's application is now in condition for allowance with pending claims 44-46, 48-52, 55, 58, 70-72 and 74-77.

Reconsideration of the subject application is respectfully requested. Timely action towards a Notice of Allowability is hereby solicited. The Examiner is encouraged to contact the undersigned by telephone to resolve any outstanding matters concerning the subject application.

Respectfully submitted,

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